

Amendment
Serial No. 10/754,029

Docket 5000-1-497

REMARKS

Claims 1-18 are rejected. Claim 1, 4, 7, 10, and 16 are independent claims. Claims 1, 4 and 7 have been amended. Claims 1-18 are now pending.

Reconsideration of all grounds of rejection in the Office Action based upon the above amendment, and allowance of all of the pending claims are respectfully requested in light of the following remarks.

Claims 1-18 stand rejected under 35 USC § 103(a) as being unpatentable over Marom (US 6,950,609) in view of Chen et al. (US 6,546,167). In response, applicants respectfully traverse this ground of rejection.

In order to advance the prosecution of the instant application and to bring about early allowance applicants have amended base claims 1, 4 and 7 to more clearly highlight features disclosed the invention, for example the fact that the first and second circulator are coupled and that the output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator as shown in FIGs. 2 and 4 which are not suggested or taught in the prior art; Marom or Chen. See also. Specification page 9, line 19, page 10, line 9, and page 13, line 10.

Base claims 1 as amended recite, an optical add/drop multiplexer connected to an optical fiber for transmission of a multiplexed optical signal, comprising, *inter alia*, a first circulator which receives a first channel at a second port, outputs the first channel to a third port connected to the reflector, receives the first channel from the reflector at the third port, and outputs the first channel to a fourth port, thereby dropping the channel and the second circulator outputs a second channel input from a fifth port to a sixth port and if the second channel is reflected back from the reflector and the output of the second

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circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator.

Similarly, base claim 4, as amended, recites a second circulator which receives a channel at a first port, outputs the channel to a second port connected to the reflector, receives the channel from the reflector at the second port, and by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator.

Base claim 7, as amended recites a channel passing through the ADM unit sequentially passes through the second and third ports of the first circulator, the reflector, the output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator.

Moreover, base claims 10, 13 and 16, recites, an optical add/drop multiplexer connected to an optical fiber for transmission of a multiplexed optical signal, comprising, *inter alia*, a plurality of add/drop multiplexer (ADM) units respectively connected to the demultiplexing ports of the WDM unit, each of the ADM units including a circulator and adapted to output a channel, input to a higher-order port, to a lower-order port, and a reflector connected between two ports of the circulator, and adapted to pass or reflect a channel input thereto.

wherein the circulator receives a channel at a second port, outputs the channel to a third port connected to the reflector, receives the channel from the reflector at the third port, and outputs the channel to a fourth port thereof, thereby dropping the channel.

Base claims 1, 4 and 7:

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Regarding base claims 1, 4 and 7, Marom fails to disclose that the output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator as recited in all three amended base claims. In contrast, Marom discloses a tunable OADM having a plurality of circulators 741-1 to 741-k having three ports 742-1, 742-2, and 742-3, as illustrated in FIG. 7 and discussed in Col. 6 line 30 to 63. As can be clearly seen in FIG. 7, each circulator has its own connection to the demultiplexing port of the Programmable Demultiplexer 730. Accordingly, Marom teaches the prior art which utilizes an excessive number of demux ports and therefore Marom fails to teach or suggest does not suggest or teach the output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator as recited in all three amended base claims.

Similarly, the Office Action's secondary reference, Chen fails to suggest or teach the present invention as recited in the amended base claims, 1, 4 and 7. Chen's FIG. 2, discloses a second circulator 34 which outputs a channel via port 46 which does not output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator as recited in all three amended base claims.

Base claims 10, 13 and 16:

Regarding, base claims 10, 13 and 16, applicants respectfully request that the Office Action provide documentary support for its conclusions of obviousness for the rejections of the base claims. The Office Action has made general conclusions concerning what is "basic knowledge" or common knowledge" to one of ordinary skill in

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the art without specific factual findings and some concrete evidence in the record to support these findings and therefore there is no support for an obviousness rejection of base claim 10, 13, and 16. See. MPEP § 2144.03.

For example, in reference to the obviousness rejection of base claim 10, the Office Action admits that Chen does not specifically disclose a reflector connected between two ports of a circulator. Applicants would respectfully request that the Examiner please provide support for the conclusion that;

“Since Chen add/drop is used for uni-directional fiber, it would have been obvious to an artisan at the time of the invention was made to connect a reflector connected between two ports of the circulator for transmitting the optical signal back to bi-directional fiber.”

As far as applicant see it, the Office Action is merely using the instant application as a blue print and seeks to fill-in the gaps by merely saying that what is clearly new would have been obvious with out any documentary evidence.

Regarding base claims 13 and 16, the Office Action proposes that an artisan at the time of the invention was made could have replaced the ADM unit taught by Chen with Marom's ADM disclosed in CHEN FIG. 7. First, applicants respond by stating that Chen's ADM as illustrated in FIG. 2 would requires connection to two demultiplexing port of Marom' Programmable. Demultiplexer 730 as seen in Marom's FIG. 7. Accordingly the combination would not result in the use of one demux port. Second, applicants respectfully request that the Office Action provide documentary evidence that;

“One of ordinary skill in the art would have been motivated to do that in order to redirect the output signal back to the bi-directional input/output fiber.”

As stated above, applicant believe that the Office Action is merely using the instant application as a blue print and seeks to fill-in the gaps by merely saying that what is clearly new would have been obvious with out any documentary evidence.

Therefore, neither Marom alone nor in combination with Chen, suggest or teach an optical add/drop multiplexer connected to an optical fiber for transmission of a

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multiplexed optical signal, comprising, *inter alia*, the output of the second circulator is coupled to the first circulator for outputting an added channel by passing the added channel back to the demultiplexing port of the WDM unit via the first circulator, as recited in amended base claims 1, 4 and 7. Similarly, neither Marom alone nor in combination with Chen, suggest or teach an optical add/drop multiplexer connected to an optical fiber for transmission of a multiplexed optical signal, comprising, *inter alia*, wherein the circulator receives a channel at a second port, outputs the channel to a third port connected to the reflector, receives the channel from the reflector at the third port, and outputs the channel to a fourth port thereof, thereby dropping the channel, as recited in base claims 10, 13 and 16.

Applicants respectfully request withdrawal of this ground of rejection.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. As such, since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

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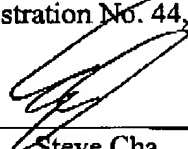
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For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited reference. A notice of Allowance is respectfully requested.

Should the Examiner deem that there are any issues, which may be best, resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

Respectfully submitted,

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